DAR Status and Plans

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DAR Status (1)

- Last release dar 1.13/1.41, December 15, 2004
  - support for multiple platforms
  - more control over the runtime environment
  - minor bug fixes and improvements
- Get from the OCTOPUS repository
  - current head
- More information on this release

  http://home.fnal.gov/~natasha/DAR_Dec_16_2004.pdf
- Most up-to-date users instructions (MCPS)

  http://www.uscms.org/Old/scpages/subsystems/MCPS/dar

DAR Status (2)

- DAR-2 is developed (October, 2004)
  - optimized efficiency (2-3 times faster)
  - supports incremental distributions (space optimization)
  - easy maintainability and extendibility (re-implemented in OO Python)
- Currently in USCMS CVS repository
  - will migrate to OCTOPUS repository as soon as production quality is achieved
- Needs more extensive testing and documentation

DAR Base Functionality

- Packages software application based on runtime environment (RTE) into DAR-ball
  - can be used for private and official code
- Installs DAR-ball from scratch
  - no super privileges required
- Provides runtime environment setup script
- DAR-2 allows to reuse code from the existing installation.
  - directory structure must be identical

DAR does not provide build capabilities, only the runtime environment.

Related Components

- DAR-ball creation RefDBDAR
  - Processes requests for DAR-balls for the official MC Production: Request specifies version, executables list, geometry files and extra requirements.
- DAR-ball Installation
  - Pre-installation (XCMSI)
  - Dynamic installation with the job (MOP, MCPS)
- Job execution
  - Source the runtime environment setup script (MCRunJob), needs to know the location of script

Related Infrastructure

- Working node to create DAR-ball
  - software availability: fully functional releases
  - buffer space required : a few GB
  - write access to the storage pool *(need a utility)*
- DAR storage pool
  - accessible for remote download
- On the production site:
  - space available for installation (visible to the worker nodes)
  - DAR availability for installing distributions

Plans and Expected Impact

- Transition to DAR-2 a.s.a.p.
- Establish infrastructure for using incremental DAR-balls
- Automated creation of the base DAR-balls
- Support multiple platforms

Using incremental DAR-balls will drastically facilitate running private applications on the GRID resources